UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 10 2014

REPLY TO THE ATTENTION OF:
E-19J

Catherine A. Batey
Division Administrator
Federal Highway Administration
3250 Executive Park Drive
Springfield, Illinois 62703

Re: Comments on the Tier II Draft Environmental Impact Statement (CEQ # 20140014) Illiana Corridor Project: Lake County, Indiana and Kankakee and Will Counties, Illinois

Dear Ms. Batey:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency reviewed the Tier II Draft Environmental Impact Statement (DEIS) for the proposed Illiana Corridor Project (IC) in Lake County, Indiana, and Will and Kankakee Counties, Illinois. EPA is a cooperating agency for this DEIS. The IC is presented as a series of twelve roadway sections within the Tier 1 selected corridor, extending between Interstate Highway 55 (I-55) near Wilmington, Illinois, and Interstate Highway 65 (I-65) near Lowell, Indiana.

EPA has participated in development of this DEIS as a member of the Technical Task Force (TTF) of agencies and stakeholders. The project is using a merged NEPA/ Clean Water Act Section 404 process (NEPA/404 process) involving EPA and other federal and state resource agencies.

EPA noted from our earliest involvement, prior to Tier 1 scoping, that the IC project has an opportunity to be developed using sustainability concepts. One aspect of sustainability EPA has encouraged is retaining connectivity throughout the corridor. Natural habitat can provide resource connectivity and may be usable for mitigation of project impacts, such as air pollution, stormwater runoff, accidents and spills, noise, and vibration. We commend the project sponsors for working with county and local stakeholders to promote sustainability through land use planning and the proposed provision of $500,000 in funding for coordination of land use planning efforts at local, county and regional levels.

This letter highlights those comments on project alternatives, environmental impacts, and mitigation measures as the basis for our rating of the Tier II DEIS as **EC-2: Environmental Concerns - Insufficient Information**. See the enclosed *EPA Summary of Rating Definitions* for an explanation of the EPA NEPA rating system. Our comments are discussed in greater detail in an enclosure- *EPA Concerns for the Illiana Corridor Project as Presented in the Tier II DEIS.*

ALTERNATIVES

The DEIS presents a no-action alternative and three build alternatives with six design options for the Illiana Corridor. By creating a new scheme for numbering alternatives, we found the DEIS confusing. Therefore, our comments refer to the alternatives as previously identified using section numbers and letters.

EPA recommends Illiana Corridor further reduce impacts to high quality wetlands and streams impacts by selecting west to east sections: 1A, 2A-4, 3B, 4A with option 6 (no interchange), 5A, 7A, 8B, 9B, 11 A, and 12C-2. EPA has concerns with the DEIS-designated Preferred Alternative sections 3, 4, 6, and 10. Those concerns are discussed in our enclosure.

Stakeholders and the public have been assured throughout the Tier I and Tier II NEPA development that connectivity will be considered for bicycles / pedestrians (bike / ped) and wildlife within the proposed 400-foot wide corridor right of way cross-section. We commend the project sponsor's outreach using the Context Sensitive Solutions (CSS) process regarding which crossroads have interchanges, grade separations, or cul-de-sacs. Bike / ped connectivity is minimally addressed, with only one existing regional trail to be carried across the Illiana Corridor. We recommend that the Tier II Final EIS include commitments for multiple specific cross-corridor bike / ped facilities, to link to existing regional bike / ped trails or to provide capacity for future north-south bike / ped trails, especially near forest preserves and the Midewin National Tall Grass Prairie.

The Tier II DEIS dismisses the concept of a bike / ped facility paralleling the length of the Illiana Corridor on safety grounds. We note, however, that a portion of Interstate 355 south extension successfully incorporated a regional bike trail within its right of way. We recommend further consideration of a bike / ped trail within the proposed 400-foot Illiana Corridor right of way with a natural trail for the Corridor's the full length. Such a nature bike / ped trail could connect to existing and future regional trails with links to parks and forest preserves.

WILDLIFE CROSSINGS

We commend the DEIS discussion of wildlife crossings and extensive information provided in Appendix O. Actual commitments (number, locations, and features) are not clear, so we offer a number of recommendations in our enclosure, including the above natural trail and riparian buffers and stream crossings.

WATER IMPACTS

We commend the extensive efforts made to avoid and minimize impacts from this project. We also commend the proposed bridges as we understand them. Nevertheless, there are impacts to waters, streams, wetlands, and floodplains. Stormwater run-off management will need best-management-practices (BMP) at multiple locations. We recommend three additional locations for possible bridging -- the two W46 crossings on I-55 and one of the West Creek tributary crossings at road mark 2950, -- and provide more detailed recommendations in our enclosure for considering bridges at these crossings.

Most streams and their associated floodplains across this corridor are degraded due to agricultural clearing, tiling, and minimizing riparian protection. Beyond just minimizing adverse impacts, this project presents an opportunity to restore some of the natural functions that have been lost. Since riparian buffers provide many benefits to streams and wildlife, we commend plans to provide some riparian buffering. EPA recommends all streams that IC crosses be restored by the establishing of appropriate riparian buffers, a minimum 100 feet on both sides of the watercourse, for an extended distance from the Illiana right of way. This should be done in coordination with appropriate federal, state, and local agencies, land owners, and other stakeholders.

Natural wetlands and existing streams should not be used for stormwater detention or pollution prevention devices. All stormwater BMPs and detention areas should be built and located outside of natural wetlands and streams.

AIR QUALITY IMPACTS

The IC has been included in the Long Range Transportation Plans for Northeast Illinois and Northwest Indiana and thus meets the Illinois and Indiana State Implementation Plan conformity requirements under the Clean Air Act.

PRAIRIE IMPACTS

Prairie impacts arise from project noise, shading, excess lighting and salt spray. U.S. Fish and Wildlife Service (FWS), Midewin National Tallgrass Prairie, and others have engaged with the project sponsors to seek to resolve these concerns. We offer some recommendations on adaptive management in our enclosure.

FOREST IMPACTS

We commend the project's commitment to provide tree replacements. In our enclosure, we provide several comments and recommendations seeking clarification to distinguish when wildlife habitat mitigation is being proposed versus tree replacements or other natural enhancements.

LAND USE

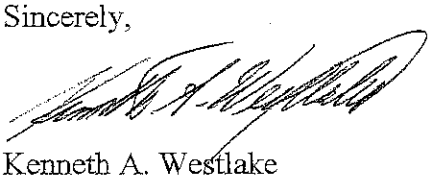
We commend the project's proposal to establish funding for the corridor communities to undertake planning, zoning and other efforts to coordinate land use and incorporate sustainability measures. The Tier II Final EIS should elaborate on the mechanisms that will be developed to coordinate with governmental units and stakeholders.

COMMITMENTS TRACKING

The DEIS proposes some clear commitments. It also identifies other practices that could be done, or are being considered. EPA recommends that a summary section with a table be presented in the FEIS / ROD where all mitigation commitments are described. This section should clearly indicate what will be done, where, when, by whom, and for what purpose. Management and monitoring should also be described.

We appreciate the opportunity to participate in this project and comment on this Tier II DEIS. We appreciate that the project sponsors will meet with EPA and other resource agencies soon to discuss each agency's comments. If you have any questions prior to that meeting, please feel free to contact me at 312-886-2910 / westlake.kenneth@epa.gov or have your staff contact Norm West of my staff at 312-353-5692 / west.norman@epa.gov.

Sincerely,



Kenneth A. Westlake
Chief, NEPA Implementation Section
Office of Enforcement and Compliance Assurance

Enclosures: *EPA Summary of Rating Definition;*
EPA Detailed Comments on the Illiana Corridor Project as Presented in the Tier II DEIS

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Steve Hamer, IDNR	Terry Savko, IDA
Jason Randolph, IN DEM	Hala Kuss, IN DEM
Mike Neyer, IN DNR	Matt Buffington, IN DNR
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Enclosure
EPA Detailed Comments on the Illiana Corridor Project as Presented in the Tier II DEIS

ALTERNATIVES:

As stated in our cover letter, EPA recommends a different set of section alternatives be joined to create the preferred alternative, specifically for sections 3, 4, 6, and 10. Our concerns and recommendations are presented here.

SECTION 3:

EPA supports the substitution of Section 3B for Section 3F in Mainline Alternative 1. Section 3F, selected in the DEIS for part of Mainline Alternative 1, proposes 3.5 acres of wetland impact. Those 3.5 acres of wetland impact include 2.02 acres of High Quality Aquatic Resource[1] (HQAR) wetlands, meaning 58% of the proposed wetland impacts would be to HQAR wetlands. Section 3B, EPA's preferred selection, proposes a lower total wetland impact (3.1 acres), with a significantly reduced impact to HQAR wetlands (0.68 acre; 22% of proposed impact). Both 3B and 3F have the same proposed stream impacts. Note that HQAR wetlands are generally considered unsuitable for dredge or fill activities.

Recommendation:
As Section 3B proposes a smaller acreage of wetland impact, and a significantly smaller impact to HQAR wetlands, EPA supports Section 3B as the least environmentally damaging practicable alternative (LEDPA) for this section.

SECTION 4:

EPA does not support the selected IL-53 Design Option 4 (offset diamond interchange at Riley Road). Of all proposed options, Design Option 4 has the highest impacts to streams[2] with 6,733 linear feet of stream impact proposed.

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[1] High-quality aquatic resources (HQARs) are aquatic areas considered to be regionally critical due to their uniqueness, scarcity, and/or value, and other wetlands considered to perform functions important to the public interest, as defined in 33 CFR Part 320.4(b)(2). These resources include Advanced Identification (ADID) sites, bogs, ephemeral pools, fens, forested wetlands, sedge meadows, wet meadows, seeps, streams rated A or B for Diversity or Integrity or mapped as Biologically Significant as described in the Integrating Multiple Taxa in a Biological Stream Rating System published by the Illinois Department of Natural Resources, wet prairies, wetlands supporting Federal or Illinois endangered or threatened species, and wetlands with a floristic quality index of 20 or greater or mean C value of 3.5 or greater. These areas are generally considered unsuitable for dredge or fill activities. See also: http://wwx.inhs.illinois.edu/private/intranet/idot/wetland-clearinghouse/forms-and-data/hqar-information/

[2] Table 3-147 on page 3-621 differentiates between impacts to streams and roadside ditches. Streams are assumed to be regulated Waters of the U.S. while roadside ditches are assumed to be unregulated under the Federal Clean Water Act. However, as a jurisdictional determination has not yet been completed by the U.S. Army

Recommendation:
We retain our August 28, 2012, recommendation that no interchange be constructed at or near IL-53. We recommend Section 4A-3 with Design Option 6, which is no interchange at or near IL-53. Among the Build Alternatives for an interchange at or near IL-53, we find Design Option 5 least objectionable --interchange at Old Chicago Road and S. Arsenal Road -- if Design Option 5 (also referred to as Section 4A-2D) were modified to further reduce stream impacts (currently 5,598 linear feet of stream impact proposed) to Jordan Creek in the vicinity of the interchange.

SECTION 6:

EPA does not support the current selection of Section 6B as the least environmentally damaging section within Mainline Alternative 1. We recommend Section 6A. As shown on the Section 3 Map Sheets (Sheet 11 of 35), Section 6A (shown as Alternative 2 in orange) has a smaller footprint and would require 2,676' of stream impact[3], versus the proposed 3,226' of stream impacts[4] associated with the larger interchange format of Section 6B. Furthermore, Section 6A has 0.58 acre of fewer wetland impacts than 6B[5].

Recommendation:
We recommend further modification of Section 6, and propose two possibilities.

Proposal (1): Turn south near marker 1600 to 1610 (Section 3 maps, sheet 11 of 15) and cross Forked Creek just once, then continue south west of Wilton Center Road, cross Wilmington Peotone Road more perpendicularly, continue south to turn east at the level of the proposed 6B straight path east, bridge the South Branch of Forked Creek just once, and join the 6B path at marker 1760 (sheet 13 of 35) at 128th Avenue.

Proposal (2) Combine the Wilton Center Road 6A interchange design extending it east to approximately marker 1710 (sheet 12 of 35) to switch to the proposed path 6B there.

Regardless of mainline modifications to the Wilton Center Road interchange for Section 6, EPA does not support the addition of the proposed frontage road north of the interchange. Barr Road, just north of the interchange, already provides connectivity. Eliminating the unnecessary frontage road avoids the additional stream and floodplain impacts at Site W19, 19E and 19F, 20B, wetland 449, and avoids creating uneconomic parcel fragments in parcels 3094 and 3080.

SECTION 10:

Two alternatives were proposed on an interagency site visit June 21, 2013, attempting to avoid impacting the forested wetlands east of Cedar Creek. When alternative 10 B was proposed, it

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Corps of Engineers, the total stream impact could increase if USACE determines that any waterways considered by the DEIS to be roadside ditches are in fact regulated Waters of the U.S.

[3] Impacts to Site W-19 (drainage impacts 18, 19, 19A, 19B, 19C, and 19E) as shown in Table 3-93 (page 3-326) in the Alternative 2 (6A) and Alternative 3 (6A) columns.

[4] Again, impacts to Site W-19 (drainage impacts 18, 19, 19A, 19B, 19C, and 19E) as shown in Table 3-93 (page 3-326) in the Alternative 1 (6B) column.

[5] 1.70 acres by EPA's calculations.

was intended to take advantage of the large cleared field in parcel 8144 and avoid most wetland impacts to Indiana wetlands b-w31-pfo, b-w27-pub and b-w-27pfo. The DEIS reveals that wetland impacts could not be totally avoided. We recommend that the second option be studied further to avoid impacts to the high quality forest and forested wetlands. This proposal bends the roadway south at marker 3230 (sheet 31 of 35) bridging to the higher land of parcel 8152 and 8145, emerging from the woods into a large clearing which has a pre-development road constructed. The IC would continue south to create a large arc for crossing Holtz Road and swinging north to rejoin the eastern road path between marker 3300 and 3310.

Recommendation:
EPA recommends the proposed southern path east of Cedar Creek appears to reduce wetland and other impacts sufficiently to make further study of the proposal worthy of consideration.

PROPOSED NATURE /BIKE /PED TRAIL

Since Tier I scoping, EPA and many local stakeholders have called for this project to include connectivity for bicycles and pedestrians. The project proponents have given assurances that bike / ped needs were important and would be addressed in Tier II as the final alternative locations were considered. This position was repeated at public meetings, agency meetings, and most CPG/TTF stakeholder meetings. EPA additionally raised concern for wildlife connectivity both along the IC and crossing this 51 mile barrier. These concerns have not been adequately addressed in the Tier II DEIS. Existing bicycle and pedestrian trails are illustrated in Figure 3-15 and discussed on page 3-101 as part of the state's complete streets program. However, the Tier II DEIS notes that the complete streets program does not apply to major highways, such as the Illiana Corridor on grounds that the high speeds on such highways are unsafe for these modes of transport,

Recommendation:
We are recommending further consideration of an Illiana Corridor nature / bike / ped trail, separated from the roadway but within the proposed 400-foot cross-section of mainline right of way. We were assured the IC 400-foot to 600-foot right-of-way width was set with such possibilities in mind. There may be some locations where such a nature / bike / ped path may need to be placed outside the 400-foot project cross-section, notably at major interchanges.

There are several existing or proposed regional bicycle/ pedestrian trails that could be integrated with an Illiana Corridor bike / ped trail. The project has already extensively considered connections with the Wauponsee Glacial Trail. We recommend similar planning for possible connection to the Illinois Central Corridor Trail, the proposed Vincennes Trail, and the proposed West Creek Trail. An Illiana Corridor Trail would connect these and thus contribute to and promote a greater network of trails in the southern suburbs. Such a nature / bike / ped trail could also provide some habitat connectivity parallel to the roadway, as discussed below. If not incorporated in initial design, a nature / bike / ped trail with habitat features would be difficult to add to the cross-section in the future.

ENVIRONMENTAL IMPACTS

STREAMS

Water Site W46 is a local tributary passing under the corridor both north and south of the interchange at IL 129. Future proposed development west of this interchange will include large areas of impermeable surfaces that could contribute to high run-off events.

Recommendation:
EPA recommends both these crossings be bridges with wildlife crossing capacity.

The tributary branch to West Creek at 50 near marker 2560 is acceptable as a culvert crossing, but the branch near marker 2950 is in a high quality habitat location and on the agency site visit appeared to have frequent high water flows. Table 3-75 (page 3-245 and 3-246) of the DEIS states that a culvert, and not a bridge, is being proposed for this Unnamed Tributary #2 to West Creek high value wildlife corridor crossing. Bridges are proposed for all other high value wildlife corridors in both Illinois and Indiana.

Recommendation:
EPA recommends the West Creek tributary crossing near marker 2950 be bridged with large wildlife crossing accommodation. A bridge would preserve stream morphology and its connectivity to adjacent forested wetlands.

The DEIS included information on stream crossing impacts, including whether each proposed stream crossing would be a bridge or culvert. Several culvert crossings noted in Table 3-101 (page. 3-376) proposed culvert with two or three cells. Multiple culverts placed in a stream tend to require more maintenance work. One or more of the culverts often becomes plugged with sediment. This in turn increases the velocity in the remaining culvert(s), which leads to increased scouring of the channel. Multiple culverts are also more likely to become clogged with debris, which could cause structural failure.

Recommendation:
EPA recommends that single span culverts be utilized for all crossings that will not be bridged. Furthermore, IDEM has previously advised this in their correspondence, "Do not use double culverts for crossings and avoid crossing streams on meanders." If multiple structures can be justified, it is recommended that the main culvert span the base (normal flow) channel. Additional culverts should be placed in the overbank area above the normal water surface elevation. Furthermore, culvert design options now allow for flexible culverts that curve the culvert structure to the meanders of the stream, instead of requiring channel straightening to conform to a straight culvert. EPA recommends that all culverts used in the Illiana project conform to the existing meanders of the stream to be crossed.

RIPARIAN BUFFERS / WILDLIFE CORRIDORS / CROSSINGS

We commend the DEIS for considering wildlife habitat, crossings and connectivity (Appendix O). We concur with many of the concepts presented in the Tier II DEIS. These include, but are not limited to:

- animals are more likely to use wildlife crossing paths for getting across a road barrier if crossings are numerous and a frequently encountered part of their habitat, as opposed to widely separated and infrequently encountered;
- wildlife crossings are more successful when there is abundant good habitat associated with the crossing, on both sides and within the crossing itself;
- roadside fencing will direct animals toward wildlife crossings, and they work better when associated with habitat;
- many varieties of animals will use crossings to avoid the road surface when wildlife crossings are appropriately located, designed and maintained;
- deer are a significant roadway crash concern in the Will and Lake County areas of the IC; such crashes may be drastically reduced by providing well designed crossings; and
- larger crossings are generally better, attracting more types and number of wildlife.

Connectivity is essential to sustainability. The Illiana Corridor has the potential to create a virtually impassable barrier to north-south movement of most terrestrial wildlife, thus fragmenting the entire southern Chicago metropolitan region. Waterways are one of the natural connectors for wildlife, so how the Illiana Corridor crosses the many waterways across Will and Lake Counties will be important for wildlife. As the DEIS rightly points out, wildlife crossings function best when there is appropriate wildlife habitat on both sides of the roadway that is being connected. Historically intensive farming throughout the Illiana Corridor study area has reduced a great deal of the natural habitat and has also impacted the many waterways and their riparian bank areas.

Recommendation:

EPA recommends that the Illiana Corridor Project do more than simply minimize adverse impacts. Instead, this project offers the opportunity to restore all of the streams it crosses, by restoring the stream riparian buffers to context-appropriate natural habitats. We propose buffers be a minimum 100 feet wide on both banks following the floodplain boundaries as a guide for further widening or narrowing. Each riparian buffer may need to extend along the banks a considerable distance beyond the IC right of way to create attractive wildlife habitat. All buffers should be designed in coordination with the Soil and Water Districts, County Farm Bureaus, Illinois and Indiana Departments of Natural Resources, Indiana Department of Environmental Management, and U.S. Fish and Wildlife Service, and relevant stakeholders.

Some riparian buffers will be appropriate as forested, some as prairie, some as scrub, and others perhaps as mixed habitat. These stream riparian buffers could then provide good habitat to attract wildlife and help direct them to appropriately designed wildlife crossings. There are sufficient numbers of waterway crossings along the IC that, if those being bridged

are designed to include a wildlife crossing, the crossings will be frequent enough to enhance their routine use by wildlife. Connecting these riparian buffers with the above recommended Illiana Corridor nature / bike / ped trail will provide significant wildlife access.

These restored riparian buffers may provide opportunity for locating best management practices, and may promote improvement of the degraded streams over time. We were asked by the project to provide more specific detail of what we are proposing.

Page 12 of Appendix O includes specific considerations for bridge design to promote wildlife movement across the corridor. One of those specific considerations was, "*A minimum width of 5-feet shall be used in upland areas (i.e., dry areas wildlife will use to traverse beneath the bridge) adjacent to either side of the watercourse or wetland being bridged.*" Specific considerations for culvert design to promote wildlife movement across the corridor were also included in Appendix O; however, no specific consideration was provided for any upland movement within or adjacent to culverts. Furthermore, all of the culvert design considerations appeared to be referencing culverts designed for stream crossings, and not the use of upland culverts for wildlife movement. The absence of any upland requirements associated with a culvert crossing means that all wildlife movements through culverts will be in flowing water conditions.

Recommendations:
Appendix O should be modified to include requirements and specific considerations for minimum adjacent upland width in a culvert crossing associated with a stream. Additionally, minimum width should be provided for upland culvert crossings and installations of stream culverts with an adjacent upland culvert crossing. These modifications should be noted in the FEIS and its appendices.

The DEIS discussion of wildlife corridors includes only a discussion of the benefits afforded bridge and culvert wildlife crossings, both of which are associated with riparian or stream crossings. The DEIS was silent on discussing and the need for upland wildlife crossing locations. Furthermore, the DEIS was silent on any guidelines that may have been considered for placement of wildlife crossings (including the presence or threatened/endangered species; documented road kill areas, crossing of any significant landscape-level habitat linkage areas).

Recommendations:
EPA has previously stated that the consideration for wildlife crossings should be taken into account based on noted current crossing areas as well as the potential for animal crossings outside of riparian areas. The FEIS should discuss how riparian wildlife crossings were selected as well as include additional upland wildlife crossing areas and the rationale for their selection.

FLOODPLAINS

Floodplain functions are often overlooked. When preserved and allowed to fully function, floodplains can protect adjacent land, streams, farms, and infrastructure

Recommendation:

In coordination with our proposed riparian buffer restoration, at appropriate locations, we recommend the riparian buffer restoration extend beyond the 100 foot minimum width and restore much or all of a floodplain area.

WETLANDS

The DEIS discusses wetlands to be bisected (Table 3-108 on page 3-409-Illinois and Table 3-112 on pages 3-418 through 3-420). In certain cases, the DEIS tables state that wetland remnants will be left to the north and/or to the south of the proposed corridor. However, those remnants that are 0.05 acre or less[6] will likely be impacted by inadvertent filling activities or indirectly through hydrologic impacts.

Recommendation:
While EPA understands that accurate final wetland impacts cannot and will not be calculated until design plans are formalized and finalized, EPA recommends that any impacts with remnants proposed of less than 0.05 acre on either side of the corridor be counted as a full wetland impact and mitigated for accordingly.

Direct impacts to wetlands due to shading from highway overpasses are mentioned on page S-24. The DEIS is unclear if acreage impact calculations are only for direct fill impacts to wetlands or whether shading-related impacts are included. Additionally, the DEIS is unclear if mitigation for indirect wetland impacts is offered. The DEIS also did not include any discussion on the potential for temporary wetland impacts associated with construction.

Recommendations:
EPA recommends that FHWA and IDOT/INDOT coordinate with the regulatory agencies to determine if wetland mitigation for indirect impacts will be required. If mitigation for indirect impacts or direct impacts such as shading is required, the FEIS should account for this by addition of narrative information. The FEIS should discuss acreages of both direct and indirect impacts, as well as proposed mitigation ratios for both direct and indirect wetland impacts. Finally, the FEIS should discuss temporary wetland impacts, and how those temporary wetland impacts will be restored. Wetland permits will include performance measures and monitoring requirements. Proposals by the project sponsors for performance measures and monitoring should be included in the FEIS.

Appendix F (page 1-5) states, "... [Natural wetlands, including farmed wetland] would require minimal effort to establish wetland habitats providing wildlife habitat and functioning as stormwater BMPs for the new roadway."

Recommendation:
Natural wetlands and existing streams should not be used for stormwater detention or pollution prevention devices. All stormwater BMPs and detention areas should be built and located outside of natural wetlands and streams.

STORMWATER

[6] Illinois Wetlands: 199 and 281; Indiana Wetlands: a-w27, a-w33, a-w34, a-w37, b-w05, b-w29, b-w42, b-w24, a-w42, a-w43, a-w44, and a-w47.

The DEIS states that detention basins and stormwater BMPs to be constructed within the corridor will be designed to capture a water quality volume generated from a 0.75-inch storm event. The DEIS then goes on to say on page 3-355, "*Further coordination with resource agencies will identify areas where the water quality volume could be increased to a minimum 1.0-inch event where practical, feasible, and with minimal additional impacts.*" In discussions with USFWS, EPA has learned that IDOT, in phone discussions with USFWS on January 16, 2014, has stated that they intend to capture a 1.25-inch rain event with onsite detention and stormwater BMPs.

Recommendations:
Prior discussion among FHWA and the regulatory agencies has involved discussions regarding capturing a minimum 1.00-inch rain event within corridor stormwater basins and BMPs. EPA supports capturing the 1.25-inch rain event within the corridor's detention basins and stormwater BMPs. If the commitment to upgrade onsite stormwater detention capacity to that of a 1.25-inch rain event is the current proposal, the FEIS should reflect this modification, and proposed BMP design should be modified accordingly. We also encourage use of green infrastructure practices such as bioswales to be included as key components of the stormwater control measures. These practices will provide for infiltration of stormwater and evapotranspiration, vs. simply storing flows and then later releasing all the flows to nearby receiving waters.

WETLAND AND STREAM MITIGATION

The DEIS did not include specific information on locations or proposals for wetland and stream mitigation; however, EPA understands that opportunities for siting mitigation are currently under investigation.

Recommendations:
EPA offers the following recommendations as wetland and stream mitigation sites are developed:

- Due to the types of wetlands to be impacted, as well as the extensive lengths of stream impacts proposed, in-kind, permittee-responsible wetland and stream mitigation appears to be the most appropriate type of mitigation to be pursued;
- Mitigation siting closer to impact sites may provide benefits to those waterways and sub-watersheds where impacts will occur;
- To the extent determined practicable and feasible, EPA encourages co-siting of wetland and stream mitigation (by State);
- Mitigation efforts and mitigation siting, to the extent sites are deemed appropriate, should be coordinated with willing government entities, such as the Midewin National Tallgrass Prairie, the Forest Preserve District of Will County, the Lake County (IN) Parks Department, both state Agriculture Agencies;
- The FEIS should include site specific mitigation proposals (if developed), including linear feet (stream) and acreage and type (wetlands) of mitigation proposed;
- All stream mitigation should be located within the same 8-digit watershed and should be directed towards sites that will improve water quality to any state impaired waterbody. If Section 319 watershed studies have been conducted within the

watersheds, the local sponsor of the study(ies) should be contacted to identify areas that will most benefit water quality; and
- Monitoring lengths, responsibility, and timeframes should be included in the FEIS.

The DEIS states on page 3-401 that a USACE jurisdictional determination will not be pursued and that it is assumed that all wetlands are federally jurisdictional. It is not clear if this means that delineated ponds are also considered to be Federally jurisdictional, nor does it clarify assumptions made in the DEIS regarding the difference between streams and those channels referred to as "roadside ditches."

Recommendation:
EPA recommends that FHWA coordinate with USACE regarding the jurisdictional status of ponds and any linear water features that are currently assumed in the DEIS to be unregulated under Section 404 of the Clean Water Act. The status of these water features, both ponds and "ditches," (regulated or not regulated) should be clarified in the FEIS. Mitigation requirements, or the lack thereof, for these features should also be clarified in the FEIS.

FORESTED IMPACTS MITIGATION

The DEIS states on page 3-18 that forest mitigation will follow 2002 IDOT policy "Preservation and Replacement of Trees" for impacts in Illinois and "*would involve coordination with INDOT for project specific tree replacement in Indiana.*"

Recommendations:
Forest mitigation in Indiana should be coordinated with USFWS, IDNR, as well as INDOT. The FEIS should include specific information on what forest mitigation is being offered in Illinois (e.g., a summary of mitigation ratios, a summary of how mitigation will be offered) and in Indiana (e.g., a summary of coordination with Indiana agencies and a specific proposal of how forest mitigation will be provided). Additionally, the FEIS should clarify forest mitigation provided for bat habitat impacts versus forest mitigation provided for impacts to upland forest. We recommend consideration of the riparian buffer restorations and the nature/ bike/ ped trail as sites for upland forest replacement.

EPA has learned that tree assessments were undertaken in late 2013, yet the DEIS did not include any information on tree assessments, nor were tree assessment documents included in any of the DEIS appendices.

Recommendations:
The FEIS should be updated to include information on the purpose and status of tree assessments undertaken in Illinois and Indiana, a map showing where the assessments were undertaken, and information on how the assessments are being utilized. If these assessments are being utilized to inform decisions on forest mitigation and/ or habitats, that information should also be included in the FEIS. Finally, the FEIS should include the tree assessment reports in full in the Appendices.

PRAIRIES

The proposed project will directly impact nearly 10 acres of native prairie, including several specific sites where presence of the Eryngium stem borer moth, a candidate species for listing under the Federal Endangered Species Act and an Illinois state-listed endangered species, was confirmed. Page 3-18 of the DEIS states, "*Where impacts to prairie remnants are unavoidable, IDOT and INDOT will work with local organizations to develop a practical mitigation plan upon completion of the FEIS and ROD.*"

Recommendation:
EPA supports efforts to transplant existing plants and plant litter, as well as transplantation of full parcels of rooted soil, from prairie remnants that may be destroyed. Transplantation efforts may be coordinated with officials at the Midewin National Tallgrass Prairie, as such efforts would support these species as well as efforts currently underway by Midewin. Proposals for plant/soil/parcel transplantation should be discussed in the FEIS.

In addition to direct impacts, the DEIS describes indirect impacts to Illinois Prairie Sites 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, and 19 due to shading from construction of highway bridges are mentioned on page 3-207 and 3-223. The DEIS states that, "Shading would lead to a change in the plant community and that would lower the natural quality." Additional direct and indirect impacts to prairie sites in Indiana are also discussed on page 3-207 and 3-224. Temporary prairie impacts are also noted in the DEIS (3-273) but are not quantified. The DEIS is unclear if acreage impact calculations are only for direct (fill) impacts to prairies. Furthermore, the DEIS is unclear if mitigation for indirect prairie impacts will be offered, or how temporary impacts to prairies will be restored or mitigated.

Recommendation:
EPA considers shade impacts as direct project impacts and they should be included in the full calculations for mitigation. The FEIS should clearly discuss, and quantify, what is meant by temporary prairie impacts. The FEIS should also discuss how temporary prairie impacts will be restored, and also include information on monitoring efforts to be undertaken to ensure full restoration of temporary impacts.

MITIGATION OF IMPACTS

The DEIS proposes specific environmental restrictions (e.g. tree clearing dates and dates for in-stream work) for the benefit of the environment.

Recommendations:
Specific environmental restrictions and DEIS commitments should be formally specified in the forthcoming Record of Decision for this project. These include, but are not limited to:

- avoid direct impacts to the northern long-eared bat and migratory birds, committing to tree clearing that will only be undertaken between October 15 and March 31;
- limit lighting to interchange areas only and not on the roadway mainline, directing lighting inward, limit lighting to the minimum intensity necessary to provide night

visibility, and utilize lights that are less attractive to insects (i.e., lights with spectrum frequencies at the yellow-red end of the spectrum rather than in the blue spectum);
- avoid impacts to fish and mussel species by stipulating no in-stream work will occur within the Kankakee River from March 15 to July 15;
- contractually requiring contractor training sessions for all workers prior to the commencement of construction activities. Training sessions should specifically include the Blanding's turtle and the ornate box turtle, and measures to minimize potential impacts to these species and their habitat.

EDITORIAL CLARIFICATIONS

These recommendations are intended to provide document changes for clarifying the document's meaning, correcting mixed labeling or multiple representations, improving legend usage, and improving the accuracy of the communication.

Page 2-25 of the DEIS states that, "Alternatives 2A-4A and 2A-4B are carried forward for further analysis within Section 3.0 of the DEIS." However, Section 3.0 of the DEIS discusses only Alternative 2A (the road centerline), and not the selected interchange design. It is not clear which interchange design, 4A or 4B, was selected as part of Preferred Mainline Alternative 1.

Recommendation:
The FEIS should clearly discuss which Section 4 interchange design is encompassed by Preferred Mainline Alternative 1.

Table 2-24 on page 2-130 of the DEIS states that Mainline Alternative 1 encompasses Section 4A-3[7] (an overpass at IL-53 with no interchange within Section 4). Table 2-24 on page 2-130 also states that Section 4A-3 was selected as the least impacting alternative (for Mainline Alternative 1), the successively greater impacting alternative (for Mainline Alternative 2), and the greatest impacting alternative (for Mainline Alternative 3). EPA concurs that Section 4A-3 (no interchange at IL-53) is the least impacting intersection alternative and as such, should be considered appropriate for inclusion in Mainline Alternative 1. However, that would mean Section 4A-3 should not have been included in Mainline Alternative 2 or 3.

Recommendation:
The FEIS should clarify this discrepancy, and clearly reference any modified sections (recommended earlier in this letter by EPA) selected for the final Preferred Alternative.

Table 2-24 on page 2-130 of the DEIS (Table 2-24) states that Mainline Alternative 1 encompasses Section 4A-3 (an overpass at IL-53 with no interchange within Section 4). The Preferred Alternative for the Tier 2 DEIS is actually Mainline Alternative 1 with construction of

[7] Known early in the document as Section 4A-3; this interchange option is referred to as IL-53 "Design Option 6" later in the DEIS.

an offset diamond interchange west of Riley Road.[8] Table 2-24 is misleading in that it makes the reader believe that Mainline Alternative 1, noted as containing Design 4A-3, will not include any interchange at IL-53 or the surrounding vicinity.

Recommendation:
Information provided in Table 2-24 should be clarified in the FEIS so reviewers can clearly determine both the subsections, and interchanges, selected for the final Mainline Alternative.

The Section 3 Map Sheets (Sheet 6 of 35) appear to show boundaries for Mainline Alternative 1 (purple), Alternative 2 (orange), and Alternative 3 (green) as being the same boundary and showing the route of Section 4A-3 (an overpass at IL-43 with no interchange within Section 4). However, due to the line overlap this may not be the case. Additionally, DEIS page 5-26, a map of the Preferred Alternative, appears to show the outline of the proposed offset diamond interchange west of Riley Road (Section 4A-2C), and NOT just an overpass of IL-53 (including design Section 4A-3, as specified on page 2-130).

Recommendation:
In the Final EIS, these figures should be modified to more clearly show this information.

All of the aerial maps of the preferred alternative (pages 5-21 to 5-55) have "delineated wetlands" and "wetland impacts" in their legends. "Delineated wetlands" and "wetland impacts" are shaded correctly on all maps for Illinois (pages 5-21 to 5-47). However, all of the maps for Indiana (pages 5-48 through 5-55) show every wetland as "wetland impact;" all wetlands are cross-hatched to mark them incorrectly as "wetland impact" and none are shown as "delineated wetlands."

Recommendation:
This error should be corrected, and updated figures provided, in the FEIS.

The DEIS lists, in several places, streams/riparian areas/wetlands that have high value as wildlife corridors. However, these lists are not consistent throughout the document. Specifically: Page 3-234 and Table 3-75 (page 3-245) of the DEIS list seven specific high value wildlife corridors in Illinois[9] and five high value wildlife corridors in Indiana[10]. However, page 1-8 of Appendix F lists only six high value wildlife corridors in Illinois[11] (along with the five high value wildlife corridors in Indiana[12]). Furthermore, the Wildlife Corridor Analysis (Appendix O) "*identified*

[8] Known early in the document as Section 4A-2C; this interchange option is referred to as IL-53 "Design Option 4" later in the DEIS.

[9] Kankakee River, unnamed tributary to the Kankakee River, Jordan Creek, Forked Creek, South Branch Forked Creek, Black Walnut Creek, and Pike Creek.

[10] Unnamed tributary #2 to West Creek, McConnell Ditch, Unnamed tributary to McConnell Ditch, Cedar Creek, and wetland b-w31-pem.

[11] Kankakee River, unnamed tributary to the Kankakee River, Forked Creek, South Branch Forked Creek, Black Walnut Creek, and Pike Creek – Jordan Creek is missing from this list.

[12] Unnamed tributary #2 to West Creek, McConnell Ditch, Unnamed tributary to McConnell Ditch, Cedar Creek, and wetland b-w31-pem.

sixteen (16) major watercourses[13] *...as wildlife corridors in the Illinois portion of the corridor"* as well as noting that "*eleven (11) major watercourses and one large wetland complex*[14] *were identified as wildlife corridors in the Indiana portion of the corridor."* Appendix O then narrowed down these lists of wildlife corridors to high value wildlife corridors. Appendix O lists seven high value wildlife corridors in Illinois[15] and six high value wildlife corridors in Indiana[16].

Recommendation:
The FEIS and appendices should rectify all discrepancies among the lists of high value wildlife corridors, and the FEIS and all appendices should reference the exact same high value wildlife corridors. Additionally, the FEIS should better explain how the list of 16 Illinois Wildlife Corridors and 12 Indiana Wildlife corridors discussed in Appendix O was further categorized into shorter lists of what is referred to as "high value" wildlife corridors in the DEIS and appendices. Should EPA's recommendations for creating improved habitat along with additional wildlife crossings be adopted in the FEIS/ROD, these listings should be updated to include them and clearly committed to in the FEIS/ROD.

Appendix S includes meeting summary notes from a NEPA/404 meeting held on September 25, 2013. During that call, IDEM made specific suggestions for locations in Indiana that would be excellent candidates for wildlife crossings. Those locations included: 1) the confluence of West Creek and an unnamed tributary to West Creek; and 2) the wetland complex between Morse Street and Mount Street (wetland b-w37-pfo). EPA's cross-referencing of the West Creek/West Creek tributary confluence on Sheet 19 of the Sustainability Opportunity Areas plan sheets in Appendix F show no wildlife crossing at this location, nor is this confluence noted in the DEIS or Appendices as an area investigated for its potential as a wildlife crossing location. Furthermore, while a bridge is planned to be installed over wetland b-w37-pfo, no wetland crossings are shown as proposed in any upland forested areas east or west of wetland b-w37-pfo, or in any forested areas at the next bridge crossing to the east (Cedar Creek).

Recommendation:
EPA recommends that these sites, as well as any additional sites that Federal or state regulatory agencies suggest as potential wildlife crossings, be studied. The results of these studies should be included in the FEIS and appendices, along with clear discussion of whether or not suggested sites were ultimately determined to be a location where wildlife crossings would be installed. If a suggested site was not selected as a wildlife crossing site, a justification of why not should be included in the FEIS.

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[13] Kankakee River, unnamed tributary to the Kankakee River, unnamed tributary to Forked Creek (west), Jordan Creek, West Branch Forked Creek, Forked Creek, unnamed tributary to Forked Creek (east), South Branch Forked Creek tributary, South Branch Forked Creek, Rock Creek, Black Walnut Creek, Marshall Slough, South Branch Rock Creek, Exline Slough, Trim Creek, and Pike Creek.

[14] Unnamed tributary to West Creek, West Creek, Unnamed tributary #2 to West Creek, McConnell Ditch, unnamed tributary of McConnell Ditch, Cedar Creek, wetland b-w31-pem, unnamed tributary to Spring Run, Spring Run, Griessel Ditch, Bryant Ditch, and unnamed tributary to Stony Run.

[15] Kankakee River, unnamed tributary to the Kankakee River, Jordan Creek, Forked Creek, South Branch Forked Creek, Black Walnut Creek, and Pike Creek.

[16] Unnamed tributary #2 to West Creek, McConnell Ditch, Unnamed tributary to McConnell Ditch, Cedar Creek, wetland b-w31-pem, and unnamed tributary to Stony Run.

SUMMARY OF EPA RATING DEFINITIONS AND FOLLOW UP ACTION*

Environmental Impact of the Action

LO-Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS sate, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1-Adequate
The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alterative and those of the alternatives reasonably available to the project or action. No further analysis or data collecting is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information
The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment